REMARKS/ARGUMENTS

Applicants hereby affirm the election of the species of claim 5. New claims 6-9 are also directed to this species.

Claim 5 is amended to introduce the change suggested by the Examiner to avoid an objection.

Claim 5 is rejected over Shimizu et al. in view of Kobiella.

Shimizu et al. disclose a method wherein a metal plate is heated to a temperature of not less than a melting point of a film and the film is laminated. In this procedure, the film is melted (e.g. see col. 8, lines 15-19) and the crystal structure and any orientation is lost. Thereafter, rapid cooling (quenching) is used so that the crystal structure of the film is maintained in an amorphous state.

Kobiella et al. does not change this basic teaching in Shimizu. Also, Kobiella refers to a different process. Kobiella et al. disclose a method for heat-sealing a thermoplastic resin. In the case of polyester, there is provided a condition of compression bonding at an extremely high temperature (800°F = 426°C) over a period of between 15 and 25 msec. Because no rapid cooling is effected after compression bonding, crystallization

results as the temperature decreases. This is contrary to Shimizu and the teaching is not readily combinable even if it were relevant. This art is directed merely to thermocompression between resins and has no technical concept of controlling crystal structure of resin, nor does it, in fact, control crystal structure.

Murakami et al. is also a primary reference cited in combination with Kobiella.

Murakami et al. disclose a method for heat bonding a polyester film to a metal sheet to form a laminate. This method is basically the same as that which Shimizu et al. discloses. However, the operation of securing an amorphous state at a thin layer portion which adheres a metal sheet, is dissimilar. The object of Murakami is improvement of adhesiveness.

The important point of the present invention is the strict control of the history of heating, to which a film is subjected during lamination: The temperature of the surface of the resin film adhering to the metal sheet is at or above the melting point of the resin film for not more than 20 msec. By limiting the time so severely, complete melting of the film is suppressed. By this, a phenomena described in the specification, namely, "the

controlling performance of the molecular maneuverability in the vicinity of the surface adhering the metal sheet is lost" is able to be avoided. The molecular maneuverability is a physical property expressed by a relaxation time and can be controlled at an orientating process in the manufacture of a resin film. The molecular maneuverability is a physical property which a film has after it has undergone an orientating process. The physical property disappears when the structure of the film is changed by heat, e.g., by melting the film. As explained on pages 4-6 of the specification it is important to maintain the physical properties of the film by not allowing the orientation and crystal form to be changed or eliminated by melting (e.g. not to become amorphous, as occurs in Shimizu). In this way food in the can, as explained in detail in the specification, comes out easier and properties are maintained.

With the method disclosed by Shimizu et al., the film structure completely disappears as a result of heating (a film in a biaxially oriented state becomes a film in an amorphous state and in a non-oriented state) and hence, this method is fundamentally dissimilar to the art of the present application and fails to accomplish an important object.

As discussed above, Kobiella et al. concerns merely heat sealing and therefore, is different by itself in the technical field when compared with the present application. Further, because the temperature during sealing is extremely high, the film cannot be avoided from thorough melting. Consequently, Kobiella is an art basically dissimilar to the present invention and combining it with the primary references does not change the essentially different teaching.

Murakami et al. also teaches melting as stated by the Examiner (see col. 7, lines 47-51). This is contrary to the requirements of the present invention wherein melting of the sheet is prevented by the very short time that the face of the laminate is above the melting point. The rapid cooling prevents a crystalline form so that as far as Murakami et al. is concerned, amorphous state is present therein even if primarily near the fused surface. This is disparate from the crystal structure of a film defined by the present application. The technical concept of the present application lies in securing lamination without losing the effects of the controlling performance of the molecular maneuverability (without destroying the film structure by melting) in the vicinity of the face

adhering the metal sheet and hence, the present invention is fundamentally different from Murakami et al. Adding Kobiella, as discussed above, does not change this basic difference.

In view of the above, it is submitted that the present invention is not shown or suggested by the cited art. Withdrawal of the rejections and allowance of the application are respectfully requested.

Respectfully submitted,

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